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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

MITCHELL, KATHERINE W

ART UNIT PAPER NUMBER

3677

DATE MAILED: 08/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/674,198

Applicant(s)

CLINCH ET AL.

Examiner

Katherine W. Mitchell

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— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 April 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8, 10-20, 22-24 and 26-43 is/are pending in the application.
4a) Of the above claim(s) 43 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-8, 10-15, 19, 20, 22-24 and 28-42 is/are rejected.
7) ☒ Claim(s) 16-18, 26 and 27 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 29 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☒ Interview Summary (PTO-413)
Paper No(s)/Mail Date with this action.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☒ Other: See Continuation Sheet.

Continuation of Attachment(s) 6). Other: 2nd interview summary 20041016 .

DETAILED ACTION

WITHDRAWAL OF OFFICE ACTION

The Office Action dated 7/15/2005 is hereby withdrawn in favor of the action below. The period for response has been restarted so that the shortened statutory period runs three months from the mail date of this letter. A new action on the merits follows.

Examiner notes that 2 office actions were mailed on 7/15/2005, as there was a paper processing error and the examiner was unsure if a correct action was sent for this case. Unfortunately, two actions with different summary sheets were mailed on the same day. While the office action that replaced the action that was processed in error did have the correct office Action Summary sheet, examiner agrees it is confusing. Applicant called to clarify which action was valid, and to question a typing mistake in the "Election/Restrictions" section. So that the record is completely clear, examiner is resending the correct action and restarting the time period. Examiner apologizes for the confusion.

Election/Restrictions

1. Newly submitted claim 43 is directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: Claim 43 is drawn to a method of fastening a fastener to a workpiece. Claims drawn to a fastening apparatus (class 411) have been examined. Method claims are in class 470.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for

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prosecution on the merits. Accordingly, claim 43 is withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Specification

2. The amendment filed 4/27/2005 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: Applicant now claims the nut is "freely suspended" above the base portion. Nothing that examiner can find in the original disclosure supports or defines "freely", and applicant has failed to point out where support for this new limitation is found. The word "free" or "freely" is not in the original specification. See MPEP 2163.04 I (B), Examiner has reviewed the drawings, which also do not indicate how "freely suspended" versus "suspended" would be defined.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Clarifications

3. Claims 2,11 now say the nut is "engaged", not encaged. Applicant should review and ensure the language is correct. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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5. Claims 39-42 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 39-42 recite "freely suspended". Examiner does not know what is meant by "freely suspended". There is no support for "freely" suspended, and further, examiner does not know how it is intended to be defined by applicant.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 8 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 8 and 20 were amended to include "and between said at least one wall portion of said body". Between the wall and what other structure? Examiner assumes everything is between the wall and something else.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

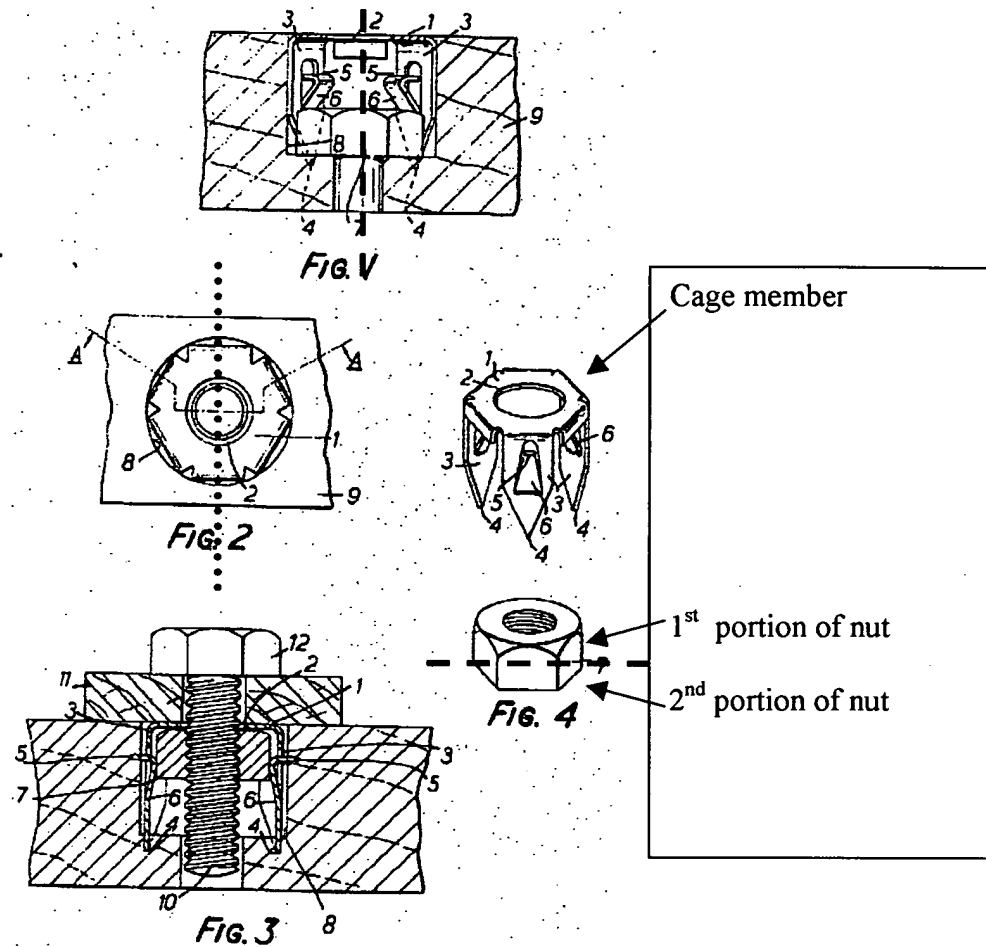
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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9. Claims 1-3,5-8,10-12,14-15, 19-20, are rejected under 35 U.S.C. 102(b) as being anticipated by Parkin USP 3451455.

Re claims 1 and 10: Parkin teaches a cage member (upper item in Fig 4) engageable with nut 7 having first and second portions and an aperture extending at least partially therethrough, (note that applicant is not claiming the nut, and a nut is capable of having distinct first and second portions. **However, further regarding claim 10**, the nut of Parkin can be considered to have a 1st portion [upper section in the figures, having the tapered sides] and a 2nd portion [lower section without taper]) thereby providing a cage nut assembly, said cage member comprising:

A body configured to encage the nut and having an aperture configured to allow access to the aperture of the nut member when the nut is encaged by cage member,



Said body defining a base portion (1) and at least one wall portion (3) and configured to engage the nut first portion such that the nut second portion does not come into contact with either the base or said at least one wall (Fig 1- notice that neither portion of the nut contacts the base or at least one wall, and in Fig 3, the 2nd portion does not contact the base or a wall 3), said body provides a limited range of nut movement in at least one dimension (axially along what could be called the bolt axis - see dashed line by examiner in Fig 1 above, although there is slight radial movement

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also), said body configured to allow access to nut member aperture within the limited range of movement of the nut member.

Re claims 2-3, 5, 11-12,14: Said upper portion comprises at least one arm (6). Looking at Fig 2, note that there are at least two arm portions (6) which are positioned on opposite sides of a plane that bisects the base (see Fig 2 and examiner-drawn dotted line for plane), thus they are positioned opposite one another. The arms define an opening sized to receive the nut member therethrough when the nut 1st portion is engaged by said 2 arm portions (See Fig 3). Examiner notes that applicant did not require the arm to extend **directly** from said base.

Re claims 6,15: Fig 1 shows each arm 6 with a generally "C" shaped portion, and forming an opening between opposite arms.

Re claims 7,19: Looking at the difference in arm 6 between Fig 1 and Fig 3, it is clear that it is inherently flexible.

Re claims 8,20: As best understood, at least one arm portion can be moved (see Fig 1 and 3 comparison of arm for movement) to allow the 2nd portion of the nut member to be positioned above said base (entire nut is always above said base). Nut is between at least one wall portion of said body and something - an opposite wall.

10. Claims 1,-3,7-8,10-12,19, 20, 22, 24, 28, and 29-42 are rejected under 35 U.S.C. 102(b) as being anticipated by Tinnerman USP 2258342, hereafter called Tinnerman '342.

Re claims 1,2,3, 7,8,10,11,12,19,20: Tinnerman 342 in Figs 1-3 teaches a cage member and nut assembly, said nut (15) having a 1st and 2nd portion (see marked up

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drawings below) enclosed by a cage member (10/11) which has a body configured to engage the nut member such that the nut member is encaged. The cage further comprises a body (11/10), and "11" is considered the upper cage/arm portion, and "10" is the base. The wall is labeled by examiner in drawings below. The nut engagement is such that the 2nd portion (same as the portion labeled "1st plate" below - looking at the drawings as oriented, it is the "lower" part of nut below "11") of the nut does not come into contact with either the base or the wall. Figs 1 and 3 shows a limited range of motion in at least one dimension. The body provides a limited range of nut movement in at least one dimension (axially along what could be called the bolt axis - although there is slight radial movement also).

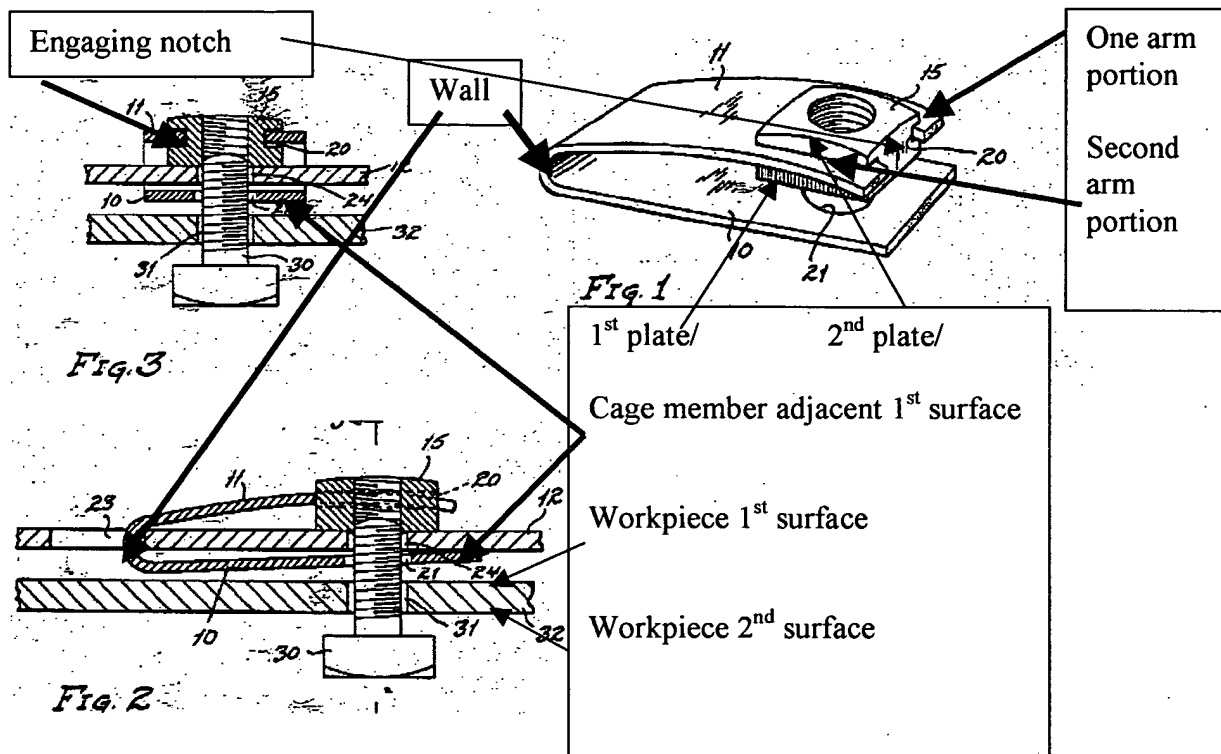
Further Re claims 3 and 12: As shown in Fig 1, arm portion 11 forms two arm portions at the end as labeled by examiner in drawings below. These two arms are opposite each other.

Further Re claims 7 and 19: The at least one arm 11 is inherently flexible - see col 1 lines 41-42 and line 27, and line 36 - sheet metal that can be bent is inherently flexible.

Further Re claims 8 and 20: As best understood by examiner, the at least one arm 11 can be moved to allow nut 2nd portion to be positioned over base and between the wall and something - in this case the very end extension of the arm 11 past the notch.

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Re claims 22 and 29-30 and 34-35 and 39-42: Tinnerman '342 in Figs. 1-3 teaches a nut (15) enclosed by a cage member (10/11) which has a body configured to engage the nut member such that the nut member is encaged. (Fig 1 and 2) "11" is considered the upper cage portion, and engaging notch (best shown in Fig 1 and 3) will inherently serve to suspend the nut off the base.



Further, the upper portion (arm 11) of said cage member is configured to engage said nut member 15 and is configured to be flexed downwardly by said nut member toward said base portion 10 in order to allow said nut member to contact said base portion (Fig 2). Examiner notes that applicant did not claim direct contact, and it is in contact via contact with intermediate member 12. Fig 2 shows the combination including

- Workpiece 32 having first and second surfaces and an aperture therethrough (31) the first surface is the “top” surface of 32 as shown in Fig 2. The second surface is the “bottom” surface as shown in Fig 2, which is directly adjacent bolt head)
- nut member 15 having an aperture (see Fig 1 showing threaded aperture extending at least partly through) and
- cage member (whole piece including 10/11) associated with said first surface of workpiece 32 (Fig2 and 3)
- a fastener (bolt 30 with enlarged head and elongated shank clearly shown in Fig 2, said enlarged head associated with 2nd surface of said workpiece and said shank in threaded engagement with said nut aperture).

Re claim 28: Fig 1 and 3 show said nut with 1st plate and 2nd plate and a connecting member between said plates, each plate having an upper and lower surface, with aperture therethrough.

Re claim 24: Fig 2 shows said lower surface of said 1st plate interfacing with said cage member base.

Further Re claims 29-30, 34,35: Fig 1 shows a cage member suspending the nut off the base, and above the base, prior to said fastener being received in the nut aperture.

Further Re claims 39-42: the body has an upper portion (11) configured to encage the nut member such that said nut member is freely suspended. It is suspended both above the base portion 10 and from said upper portion 11. Absent any

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definition, since said nut is free to move in at least one dimension, it is considered freely suspended.

Re claims 31,36: Figs 1 and 3 shows a limited range of motion in at least one dimension. The body provides a limited range of nut movement in at least one dimension (axially along what could be called the bolt axis - although there is slight radial movement also).

Re claim 32,37: The body further comprises at least one wall (see label by examiner above), and Figs 1- 3 show the nut engaged such that the nut does not contact at least one wall.

Re claims 33,38: Said body comprises at least one arm 11 which serves to suspend said nut above said base. (Figs 1 and 3). Examiner notes that applicant did not require the arm to extend **directly** from said base - it extends from the wall which extends from the base, and thus is also considered to extend from the base.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tinnerman '342 in view of Tinnerman USP 2303148, hereafter called '148. As discussed above, '342 teaches all the elements except welding the cage member to the first surface of said workpiece. Tinnerman '148 teaches in page 2 col 1 lines 5-15 that

welding is well known in the art of fastener connections. Tinnerman '148 features a temporary attachment means specifically to facilitate ease of reuse and removal. However, if a more permanent attachment was desired, '148 teaches that welding is well-known. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made modify Tinnerman '342 to weld the cage member to the workpiece if a relatively permanent, rather than temporary, attachment is required.

13. Claims 4 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parkin. Absent some showing of criticality, the claimed shapes are nothing more than several of numerous shapes a person of ordinary skill in the art would find obvious for the purpose of matching the shape to the job to be fastened. In re Dailey 149 USPQ 47 (CCPA 1976). Further, Parkin shows the base with 6 corners, and 3 walls each with an arm, each extending from separate corners, thus matching any stability or symmetrical support that is required.

Response to Arguments

14. Applicant's arguments, filed 4/27/2005, with respect to amended claims 1-8 and 10-20 (independent claims 1 and 10) have been fully considered and are persuasive. The rejection has been withdrawn. However, Applicant's arguments with respect to claims 1-8 and 10-20 (independent claims 1 and 10) have been considered but are moot in view of the new ground(s) of rejection.

Re claims 22, 28,24: applicants arguments are moot in view of new ground of rejection.

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15. Applicant argues that new claims 29 and 34 read over Tinnerman 148 because the nut member is suspended off the base prior to the fastener being received in the aperture of the nut member. Applicant is claiming the apparatus, not the method of use. As long as the apparatus is capable of meeting the limitation, the limitation is taught. However, examiner considers the arguments moot in view of the new ground(s) of rejection.

16. Applicant has not made arguments with respect to claims 39-42, as all applicant has done is repeat the claim verbatim and say the prior art does not teach it. This is merely a general allegation of patentability. Examiner has previously reminded applicant of 37 CFR 1.111, which states: A general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references does not comply with the requirements of this section.

The requirements of 37 CFR 1.111(b) must be complied with by pointing out the specific distinctions believed to render the claims patentable over the references in presenting arguments in support of new claims and amendments.

Rather than send a 2nd, deliberate non-responsive letter out to applicant, examiner is examining the application without the required specific distinctions being pointed out, since examiner believes the applicant intended to reply. However, examiner considers the arguments moot in view of the new ground(s) of rejection.

Allowable Subject Matter

17. Claims 16-18, and 26-27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

18. The following is a statement of reasons for the indication of allowable subject matter: Claim 16 - The nut of Parkin is not positioned on the top surface of the arm portions, nor would it work if it were. Claim 27 - The 1st and 2nd plate structures having upper and lower surfaces is not taught by Tinnerman '148 or Parkin, nor can examiner find a motivation for modifying to include such structure. Tinnerman '342 teaches the 1st and 2nd plate structures having upper and lower surfaces, but only one arm, and would not work if it had two arms at opposed corners (claim 27 -- required by parent claims 12 and 13 to have at least 2 arms opposite one another. Claim 26- - no combination teaches nut 1st and 2nd plate structures having upper and lower surfaces and a cage comprising at least one arm having an upper surface in contact with said lower surface of said 2nd plate of said nut.

Conclusion

19. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

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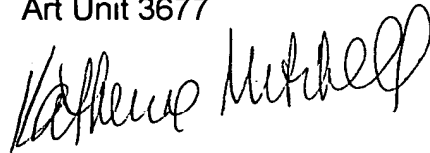
mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katherine W. Mitchell whose telephone number is 571-272-7069. The examiner can normally be reached on Mon - Thurs 10 AM - 8 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. J. Swann can be reached on 571-272-7075. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

21. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Katherine W Mitchell
Examiner
Art Unit 3677



Kwm
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